

LISTING OF THE CLAIMS

This listing of claims will replace all prior versions, and listings, of claims in the application:

I. - 24. (Canceled)

25. (New) An apparatus with mirror elements for large-area light deflection, characterized in that:

the apparatus forms a panel which has a plurality of micromirror apparatuses, which themselves contain a respective plurality of individual bodies which are connected to a common base mounting surface, with one individual body containing at least one holding element, which is upright above the base mounting surface, for a mirror element which is connected to it and has an optically reflective effect, and with a conductive layer being provided as a common control electrode for movement of a group of mirror elements.

26. (New) The apparatus as claimed in claim 25, in which an electrically controllable actuation mechanism is provided for the movement of the mirror elements.

27. (New) The apparatus as claimed in claim 26, furthermore containing:
a device for application of a plurality of electrical control variables to respectively different, predetermined groups of spatially adjacent mirror elements, in order to drive the actuation mechanism.

28. (New) The apparatus as claimed in claim 27, in which the actuation mechanism is based on electrostatic forces, in which at least one first electrode is associated with a mirror element, and at least one second electrode is associated with the base mounting surface.

29. (New) The apparatus as claimed in claim 27, in which the device for application of a plurality of electrical control variables for the purpose of specific actuation of mirror elements contains a device for wire-free reception of a plurality of different control signals from a controller.

30. (New) The apparatus as claimed in claim 25, in which the plurality of micromirror apparatuses are subdivided into individual modules which can each individually be connected to one another.

31. (New) The apparatus as claimed in claim 25, in which the mirror elements are in the form of a reflective metal layer or a dielectric multiple layer with an electrically conductive single layer or are in the form of a reflective polymer layer with a conductive single layer.

32. (New) The apparatus as claimed in claim 30, in which the apparatus contains connecting elements, to which individual modules of the same type can be connected at the edge.

33. (New) The apparatus as claimed in claim 32, in which the apparatus contains plug-in connecting elements and in which the connecting elements contain not only the mechanical connection but also an electrical plug-in connection between apparatuses of the same type.

34. (New) The apparatus as claimed in claim 27, in which the predetermined electrical control variable can be predetermined for each micromirror apparatus.

35. (New) The apparatus as claimed in claim 25, in which the mirror elements are either

- a) designed to be flat, or
- b) they have a curved shape.

36. (New) The apparatus as claimed in claim 25, in which a holding element and a mirror element are manufactured from one piece.

37. (New) The apparatus as claimed in claim 25 , alternative a), in which the mirror elements are rectangular.

38. (New) The apparatus as claimed in claim 25, in which the mirror elements are arranged in the form of a regular matrix comprising parallel rows and parallel columns.

39. (New) The apparatus as claimed in claim 25, in which a mirror element is in the form of a structural element of a metal layer or of a dielectric multiple layer with a conductive single layer, or of a conductive polymer layer with reflective characteristics, and in which the mirror element is mounted such that it can move relative to the base mounting surface, for an actuation mechanism which acts on the mirror element, by virtue of its own predetermined bending stiffness or the bending stiffness of its connection to the holding element.

40. (New) The apparatus as claimed in claim 39, in which a flat opposing electrode, which is common to a plurality of or all of the mirror elements, is provided on the base mounting surface and an electrical supply line, which leads to an outer edge of the apparatus, and contact between the electrodes and groups of individual bodies is provided by means of planar lines, for computer-controlled addressing and actuation of the individual-body movement, in groups, via the electrode pairs.

41. (New) The apparatus as claimed in claim 30, in which a flat opposing electrode, which is common to a plurality of or all of the mirror elements, is provided on the base mounting surface, and an electrical supply line, which leads to an outer edge of an individual module, and contact between the electrodes of groups of individual bodies is provided by means of planar lines, for computer-controlled addressing and actuation of the individual-body movement, in groups, via the electrode pairs.

42. (New) The apparatus as claimed in claim 25, in which a mirror element is connected via at least one bridging element of predetermined bending stiffness to the holding element.

43. (New) The apparatus as claimed in claim 25, in which the mirror element is attached to two bridging elements which, running in a parallel direction, form a pivoting axis for the area of the mirror element, and act on opposite sides of the mirror element, and in which the twisting stiffness of the bridging elements about their pivoting axis can be matched to the electrostatic forces between the electrodes such that a pivoting movement of the mirror element can be carried out with a specifically variable deflection angle relative to the base mounting surface.

44. (New) The apparatus as claimed in claim 43, in which a mirror element is mounted in a universally jointed manner by means of a further bridging element pair, which is provided within the pivoted area according to the preceding claim.

45. (New) The apparatus as claimed in claim 43, in which the mirror element is oriented with respect to the pivoting axis such that a pivoting axis divides the mirror element off-center.

46. (New) The apparatus as claimed in claim 25, in which the mirror element is in the form of a Bragg filter element, and has a filter function which can be spectrally tuned by means of the control voltage which is applied between the electrodes.

47. (New) A building window containing a panel as claimed in claim 25.

48. (New) The building window as claimed in claim 47, in which the panel is provided between two window panes.

49.(New) A system for designing building facades containing one or more panels as claimed in claim 25, a controller for controlling the deflection of mirror elements of the panel, as well as a device for transmission of control signals or electrical control variables to one or more panels.

50. (New) The use of claim 25 for designing building facades, including their windows.

51. (New) A system as claimed in claim 49 for designing building facades, including their windows.

52. (New) A building window as claimed in claim 47, for designing building facades, including their windows.

53. (New) The use of a panel as claimed in claim 25, in an installation for use of solar energy, in which the panel is used to deflect or to focus solar radiation.

54. (New) The use of a panel as claimed in claim 25, with lamps on a reflector basis for specific light deflection and/or light focusing, in which the panel forms at least a part of the reflector surface.